

## REMARKS

In accordance with the foregoing, claims 1-2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 23-24, 27-28, and 31 are amended and new claim 32 is presented. No new matter is presented, and approval and entry of the amended claims and new claim are respectfully requested.

Claims 1-32 are pending and under consideration. Reconsideration is requested.

### **Rejection of claims 14-19 and 28-31 under 35 U.S.C. §101**

In the previous Office Action mailed on December 13, 2008 ("previous Office Action"), the Examiner rejected claims 14-19 and 28-31 under 35 U.S.C. §101 asserting they were directed to non-statutory subject matter. (See, previous Office Action, page 2, lines 9-11).

In the current Office Action, the Examiner asserts:

With reference to amended claims submitted 13 June 2008, examiner maintains previous rejection, as page 50, lines 14-16 include communications medium within computer readable medium. Examiner suggests further limiting claim or specification language to exclude communication medium.

(See, Office Action at page 2, lines 6-9).

Independent claim 14 is amended herein to recite a computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium. . .". (Emphasis added). Independent claims 16, 18, 28 and 31 are amended herein in a similar manner.

Applicants submit that the Examiner's concerns are addressed and that independent claims 14, 16, 18, 28 and 31 (and respective dependent claims 15, 17, 19, and 29-30) comply with 35 U.S.C. §101. Thus, withdrawal of the rejection is requested.

### **Items 7-14: Rejection of claims 6-7, 12-13 and 18-19 under 35 U.S.C. §102**

In items 7-14 of the Office Action, the Examiner rejects claims 6-7, 12-13, and 18-19 under 35 U.S.C. §102 as being anticipated by Fink et al. (U.S.P. 6,496,935). (See, Office Action at pages 3-6). The rejection is traversed.

As set forth in MPEP §2131, to establish anticipation under §102, the reference relied on in support of the rejection must teach each and every element of the claim and the identical invention must be shown in as complete detail as in the claim.

Applicants submit that each and every element recited by each of independent claims are not taught by Fink. Independent claim 6, as amended herein, for example, recites a packet forwarder including "a received packet transfer unit that transmits a routing information packet received at the network interface to a packet control device, the packet control device including a

virtual interface having address information associated with the network interface, the packet control device maintaining the routing table of the packet forwarder using a routing process that generates the routing table based on routing information on the packet received at the network interface, and the packet control device connecting to the packet forwarder through a network; and a routing information receiving unit that receives the routing information packet delivered to the routing process by the packet control device from the routing process, the routing information packet being associated with the virtual interface."

Independent claim 12 as amended herein recites a method including "...transferring the routing information packet to a packet control device, the packet control device including a virtual interface having address information associated with the network interface, and the packet control device connecting to the packet forwarder through a network; and receiving the routing information packet from the packet control device, the routing information packet being associated with the virtual interface, wherein the routing table makes a destination address of a packet associate with a next transfer destination." Independent claim 18 as amended herein has a similar recitation.

Applicants submit that Fink does not teach, for example, "a packet control device connecting to the packet forwarder through a network," as recited by each of independent claims 6, 12, and 18. By contrast, Fink merely teaches:

FIG. 3 is a flowchart of an exemplary method for operating the present invention. In step 1, a packet is received by the pre-filtering module. In step 2, at least one parameter of the packet is retrieved by the pre-filtering module. In step 3, the at least one parameter is used for examining the known connections, preferably by performing a look-up in a table of such known connections. In step 4a, if an entry is found for the packet, then the action or actions defined for this connection are performed by the pre-filtering module. In step 5a, the packet is forwarded to its destination. Steps 4a and 5a are not performed if the packet has certain session-control field values, such as a set SYN/FIN/RST flag for a packet transmitted over an IP network, in which case the packet is preferably forwarded to the firewall for handling. Such session-control field values are indicative of packets which carry information about the connection state, and are therefore important for the firewall to receive and analyze, in order to determine the state of the connection.

(See, for example, Fig. 3 and lines 20-38).

That is, Fink merely teaches, for example, that a packet is forwarded, but Fink does not teach a packet control device connecting to a packet forwarder through a network, as recited by claim 6, for example.

Since all of the features recited by each of the independent claims 6, 12, and 18 are not taught by Fink, the rejection should be withdrawn.

\* \* \*

Dependent claims 7, 13, and 19 inherit the patentable recitations of their respective base claims, and therefore, patentably distinguish over the cited art for at least the reason discussed above.

### **Conclusion**

Thus, the rejection should be withdrawn and claims 6-7, 12-13, and 18-19 allowed.

### **Items 15-22: Rejection of claims 10-11, 16-17, 20, 24 and 28 under 35 U.S.C. §102**

In items 15-22 of the Office Action, the Examiner rejects claims 10-11, 16-17, 20, 24 and 28 under 35 U.S.C. §102 as being anticipated by Foster et al. (U.S. Pub. 2003/0204618). (See, Office Action at pages 6-11). The rejection is traversed.

Applicants submit that each and every element recited by each of independent claims are not taught by Foster.

Independent claim 10, as amended herein, recites a method including ". . . the packet control device connects to the packet forwarder through a network." Independent claim 16 has a similar recitation.

Independent claim 20, as amended herein, recites a router control device including ". . . the router control device connects to the forwarder through a network." Independent claims 24 and 28 have similar recitations.

By contrast, Foster merely teaches:

[O]ne or more Virtual Identifier ("VI") Network Interface Controller ("NIC") facilities on each node (e.g., one VI NIC for each network interface) facilitate the use of virtual identifiers in communicating data. When a VI NIC on a node receives an indication that a data communication to one or more remote nodes is to occur, such as from an application executing on the node, the VI NIC will identify an appropriate transmittal virtual identifier that can be used to route the data communication through the network to the appropriate remote destination nodes without being assigned to or directly associated with those destination nodes. Such data communications can include both transitory connectionless transmittals of data (e.g., unidirectional transmittals from a source to a destination) and non-transitory connections that allow multiple distinct transmittals of data (e.g., a persistent dedicated connection that allows a connection-initiating source and a connection destination to transmit data back and forth).

(Emphasis added, See, for example, paragraph [0014]).

On page 3 of the Office Action in the section entitled "Response To Arguments," the Examiner asserts that Foster's disclosure in paragraph [0014] teaches that one or more VIC network interface card may be associated with each network interface.

The Examiner also asserts that paragraph [0029] of Foster teaches:

[A] packet control device, the packet forwarder including a plurality of network interfaces, the packet control device including a plurality of network interfaces and a plurality of virtual interfaces, each of the virtual interfaces having address information that is associated with one of the network interfaces of the packet forwarder" where the virtual identifier translating table reflects the IP ports related to the virtual interfaces of the VOPN.

(Emphasis added, See, for example, page 7, lines 2-6 paragraph [0014]).

Applicants submit that Foster does not teach "... the packet control device connects to the packet forwarder through a network, as recited by each of claims 10 and 16. Further, Foster, does not teach "... the router control device connects to the forwarder through a network," as recited by each of claims 20, 24 and 28.

Since all of the features recited by each of the independent claims 10, 16, 20, 24, and 28 are not taught by Foster, the rejection should be withdrawn.

\* \* \*

Dependent claims 11 and 17 inherit the patentable recitations of their respective base claims, and therefore, patentably distinguish over the cited art for at least the reason discussed above.

#### **Conclusion**

Thus, the rejection should be withdrawn and claims 10-11, 16-17, 20, 24 and 28 allowed.

#### **Items 23-32: Rejection of claims 1-5, 8, 9, 14 and 15 under 35 U.S.C. §103**

In items 23-32 of the Office Action, the Examiner rejects claims 1-5, 8, 9, 14 and 15 under 35 U.S.C. §103 as being unpatentable over Fink and Foster. (See, Office Action at pages 11-21). The rejection is traversed.

Independent claim 1, for example, recites packet control system including "... the packet control device connects to the packet forwarder through a network." Independent claims 2, 4, 8 and 14 have similar recitations.

The Action concedes that Fink does not teach a specific rule or routing scheme to use with the firewall, but only references a general set of rules. (See, for example, Office Action at page 12). The Examiner asserts that Foster teaches:

[A] system that uses virtual identifiers to process data routed through a network wherein the packet control device includes: a virtual interface that has address information associated with the network interface of the packet forwarder (page 5, paragraph [0029], where the virtual identifier translation table reflects the IP ports related to the virtual interfaces of the VPN); and a transmitted packet reception unit that receives the routing information packet and that associates the routing information packet with the virtual interface (Figure 3, Virtual Identifier Translation

Table 325).

(See, Office Action at pages 11-12).

Applicants submit, however, that as discussed above in traversing the rejections under ¶102. Foster does not teach "... the packet control device connects to the packet forwarder through a network".

Thus, even an *arguendo* combination of Fink in view of Foster does not teach all the features recited by each of independent claims 1-2, 4, 8 and 14.

\* \* \*

Dependent claims 5, 9, and 15 inherit the patentable recitations of their respective base claims, and therefore, patentably distinguish over the cited art for at least the reason discussed above.

#### **Conclusion**

Thus, the rejection should be withdrawn and claims 1-5, 8, 9, 14 and 15 allowed.

#### **Items 33-39: Rejection of claims 21-23, 25-27 and 29-31 under 35 U.S.C. §103**

In items 33-39 of the Office Action, the Examiner rejects dependent claims 21-22, 25-26, and 29-30 under 35 U.S.C. §103 as being unpatentable over Foster and in further view of Lin et al. (U.S.P. 6, 272, 522). (See, Office Action, pages 21-27). The rejection is traversed.

The Examiner relies on Lin's disclosure merely as teaching a method of routing within a packet switching system. (See, for example, Office Action at page 22).

Applicants submit that nothing in the teaching of Lin overcomes the deficiencies in the teaching of Foster discussed above.

Thus, even an *arguendo* combination of Foster in view of Link does not teach all the features recited by each of dependent claims 21-22, 25-26, and 29-30 that inherit the patentable recitations of their respective base claims.

#### **Conclusion**

Thus, the rejection should be withdrawn and claims 21-22, 25-26, and 29-30 allowed.

#### **Items 40-43: Rejection of claims 23, 27, and 31 under 35 U.S.C. §103**

In items 40-43 of the Office Action, the Examiner rejects dependent claims 23, 27 and 31 under 35 U.S.C. §103 as being unpatentable over Foster and Lin. (See, Office Action, pages 27-33). The rejection is traversed.

Independent claim 23 recites, for example, a router control system including "... the router control device connects to the forwarder through a network." Independent claims 27 and

31 have similar recitations.

As discussed above, this feature is not taught by Foster. Applicants submit that nothing in the teaching of Lin overcomes the deficiencies in the teaching of Foster discussed above.

Thus, even an *arguendo* combination of Foster in view of Link does not teach all the features recited by each of independent claims 23, 27, and 31.

#### **Conclusion**

Thus, the rejection should be withdrawn and claims 23, 27, and 31 allowed.

#### **New claim**

New claim 32 recite features of the present invention in a different fashion. New claim 32 recites a method performed by a processor of controlling a router including "connecting a router control device to a forwarder through a network; creating and managing virtual interfaces, each having address information that is associated with one of a plurality of network interfaces of the forwarder, on the router control device; and outputting."

These, and other, features of claim 32 patentably distinguish over the cited art, and they are submitted to be allowable for the recitations therein.

#### **Conclusion**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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